

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 648D (BALTIMORE ANNAPOLIS BLVD) AND RIGGS AVE/MCKINSEY RD IN ANNE ARUNDEL COUNTY. THE MODIFICATION WILL INCLUDE UPGRADING THE EXISTING PEDESTRIAN SIGNALS TO AUDIBLE TACTILE PEDESTRIAN PUSHBUTTONS (APS) AND COUNTDOWN PEDESTRIAN SIGNALS (CPS) ON THE SOUTH LEG OF THE INTERSECTION. MD 648D IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

- THE INTERSECTION OPERATES IN A NEMA FOUR (4) PHASE, FULLY-ACTUATED MODE. THE MAINLINE MD 648D PHASES OPERATE CONCURRENTLY WITH PERMISSIVE LEFT TURN MOVEMENTS. THE SIDE STREET OPERATES AS A SPLIT PHASE WITH WESTBOUND (MCKINSEY RD) AS THE LEAD PHASE. EASTBOUND (RIGGS AVE) HAS AN ALTERNATE PEDESTRIAN PHASE. BUS PRE-EMPTION EXISTS ON NORTHBOUND MD 648D.
- AN EXISTING NEMA FULL-TRAFFIC-ACTUATED, EIGHT (8) PHASE CONTROLLER IN A NEMA SIZE 5 POLE MOUNTED CABINET SHALL BE UTILIZED AT THIS LOCATION.

III. SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:
TO CROSS MD 648D (BALTIMORE ANNAPOLIS RD)

- WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS BALTIMORE ANNAPOLIS AT MCKINSEY AND RIGGS, WAIT."
- WHEN THE WALK PHASE BEGINS, THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACTS

DISTRICT (DISTRICT 5)

MR. LEE STARKLOFF
DISTRICT ENGINEER
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MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-841-1019

MR. MIKE HUBER
DISTRICT UTILITY ENGINEER
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MR. JAMES FOLDEN
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
410-841-1031

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
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OFFICE OF TRAFFIC AND SAFETY

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MR. MICHAEL STOCKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7696

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

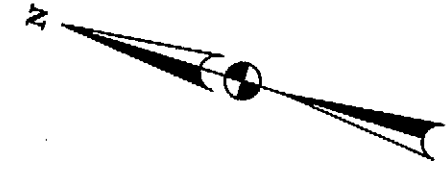
ITEM NO.	QUANTITY	DESCRIPTION
9570	22 SF	SHEET ALUMINUM GROUND MOUNTED SIGN 2 EA S1-1 - 36"x36" 1 EA W16-7P(L) - 24"x12" 1 EA W16-7P(R) - 24"x12"
9571	2 SF	SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN 2 EA 'PUSH BUTTON TO CROSS B & A BLVD ->' - 9"x15"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1003	450 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH
6002	140 LF	COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
6003	50 LF	CURB ANY HEIGHT
6006	1150 SF	5 INCH CONCRETE SIDEWALK
6007	50 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8001	2 EA	FURNISH AND INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8002	2 EA	FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE - ANY SIZE
8003	2 EA	FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8004	1 EA	REMOVE AND DISPOSE EXISTING MATERIAL PER ASSIGNMENT
8007	55 LF	FURNISH AND INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8009	1 EA	ADJUST EXISTING HANDHOLE
8010	130 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8013	24 SF	INSTALL GROUND MOUNTED SIGN
8018	170 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8019	160 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8020	995 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8021	260 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
NEG.	16 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
NEG.	20 LF	1 INCH DIAMETER FLEXIBLE STEEL CONDUIT
NEG.	455 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES

C. IF THE CABINET IS TO BE REMOVED SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATIONS.

PHASE CHART



1	2	3	4	5	6	7	8	9	10
(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)

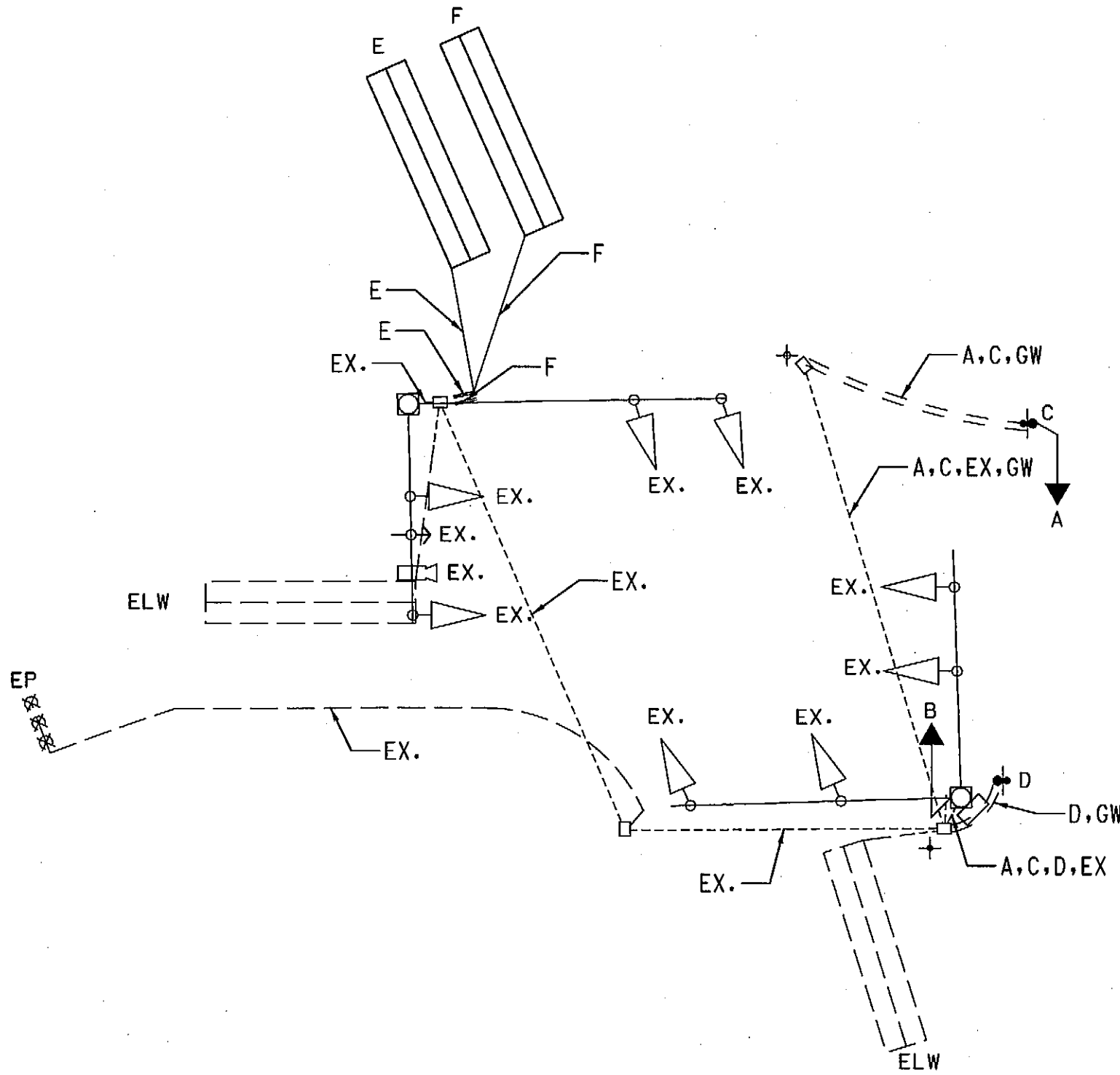
PHASE 2 AND 6	G	G	G	G	R	R	R	R	DW	DW	↑
PHASE 2 AND 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	→
PHASE 3	R	R	R	R	R	R	G/G-	G	DW	DW	↑
PHASE 3 CHANGE	R	R	R	R	R	R	Y	Y	DW	DW	→
PHASE 4	R	R	R	R	G/G-	G	R	R	DW	DW	↑
PHASE 4 CHANGE	R	R	R	R	Y	Y	R	R	DW	DW	→
PHASE 4 ALT	R	R	R	R	G/G-	G	R	R	WK	WK	↑
PED CLEARANCE PHASE	R	R	R	R	G/G-	G	R	R	FLDW	FLDW	↑
PHASE 4 ALT CHANGE	R	R	R	R	Y	Y	R	R	DW	DW	→
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	DARK	DARK	↑

PRE-EMPT	G	G	G	G	R	R	R	R	DW	DW	↑
PRE-EMPT CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	→

WIRING DIAGRAM

WIRING KEY:

- A,B - 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- C,D - 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E,F - PROPOSED LOOP WIRE
- GW - 1 CONDUCTOR (NO. 6 A.W.G.) STRANDED BARE COPPER GROUND WIRE
- EX. - EXISTING CABLE
- EP - EXISTING PROBES
- ELW - EXISTING LOOP WIRE
- ⊕ - EXISTING GROUND ROD
- ⊕ - PROPOSED GROUND ROD



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 648D AT MCKINSEY RD /RIGGS AVE
APSCPS UPGRADE
SEVERNA PARK, MD

GENERAL INFORMATION SHEET

SCALE N.T.S. DATE 6/19/2013 CONTRACT NO. XX5295178

DESIGNED BY ME/ESA COUNTY ANNE ARUNDEL
DRAWN BY ESA LOGMILE 02064803.61
CHECKED BY MF TMS NO. M106
F.A.P. NO. TOD NO.

TS NO. 305G-GI DRAWING **SG-03** OF 03 SHEET NO. 3 OF 3

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